

In the Claims:

20. (Amended) A plastic structural element, comprising: a plastic material; [and] at least one insert having a length embedded in the plastic material so that a portion of the insert extends from the plastic material, [such that] the insert [exhibits the same or] exhibiting different values of at least one of rigidity and thermal expansion coefficients compared to the plastic[, the plastic structural element exhibiting at least one of the following features:

a)] ; and a plastic coupling layer arranged to join the insert to the plastic material, the coupling layer being an intermediate layer of fiber-reinforced plastic, whereby the coupling layer produces one of a gradual and uniform equalization of at least one of the [E-] elastic modulus determining [at least one of] stiffness and a coefficient of thermal expansion between the plastic material and the insert[;

b) the insert having an embedded length with at least one opening, at least one of reinforcing fibers, fiber strands and textile type materials being looped through the opening and embedded in and intimately joined to the plastic matrix of the plastic structural element; and

c) the insert having an embedded length with one of strips, fingers and finger-shaped projections that one of lie parallel, are comb-like and fan-shaped, so that there is improved strength and durability between the plastic material and the insert and withstands higher loads.], the coupling layer having a gradient effect relative to the coefficient of thermal expansion and the elastic modulus based on at least one of volume fraction of fibers, type of fiber and alignment of the fibers or fiber layers.

24. (Amended) A plastic structural element according to claim 23, wherein the glass reinforced plastic contains [E-glass fibers] fiberglass.

26. (Amended) A plastic structural element according to claim 25, wherein the carbon reinforced plastic contains [HT] high-tenacity carbon fibers.

32. A plastic structural element according to claim 31, wherein the fiber-reinforced plastic is a carbon reinforced plastic containing [HM] high-modulus carbon.

39. (Amended) A plastic structural element according to claim 38, wherein the coupling layer is reinforced by one of [HT] high-tenacity carbon fibers and [E-type glass fibers] fiberglass.

42. (Amended) A plastic structural element according to claim 20, wherein the insert is made of one of aluminum, magnesium, an alloy containing aluminum and an alloy containing magnesium, the coupling layer being a [layer type] layered composite and having a layered structure of fiber layers, wherein fibers in individual layers of the structure are oriented in at least one direction, at least one of the fibers and the fiber layers lying [at] adjacent the plastic material being aligned with a direction of neighboring fibers and the fiber layers in the plastic material so that [a] an angular deviation in orientation of the fibers is less than 60°, one of the fibers and fiber layers lying [next] adjacent to the insert having an orientation of - 30° to - 70° or + 30° to + 70°, where 0° represents a main direction of [main] forces acting on the insert.